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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,994	01/12/2005	Yoshiyuki Ushigami	52433/766	1853
26646 7590 07/25/2007 KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004				
			EXAMINER SHEEHAN, JOHN P	
			ART UNIT 1742	PAPER NUMBER
			MAIL DATE 07/25/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/500,994	Applicant(s) USHIGAMI ET AL.	
	Examiner John P. Sheehan	Art Unit 1742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 and 6-8 is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☒ Claim(s) 5 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>12/13/04 & 8/29/06</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Interpretation

2. Claim 1, the last paragraph, recites:

"stabilizing secondary recrystallization by controlling the amount of moisture carried in the annealing separator consisting mainly of alumina after application and drying thereof, and the partial water vapor pressure during finish-annealing".

This claim language does not recite any limits to which the moisture content of the annealing separator and the partial water vapor pressure are controlled. Further, there is no definition in the specification regarding the phrase, "stabilizing secondary recrystallization". Thus, the phrase, "stabilizing secondary recrystallization" does nothing to limit the moisture content of the annealing separator or the partial water vapor pressure. In view of this, the claim language set forth above does little, if anything, to limit the claims with respect to the amount of moisture in the annealing separator and the partial water vapor pressure during finish annealing.

Claim Objections

3. Claims 5 and 9 are objected to under 37 CFR 1.75(c) as being in improper form because each of claims 5 and 9 depend from a multiple dependent claims, however a multiple dependent claim cannot depend from another multiple dependent claim. See MPEP § 608.01(n). Accordingly, the claims 5 and 9 have not been further treated on the merits.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Document No. 8-269558 (Japan '558).

Japan '558 teaches a method of making a grain oriented silicon steel sheet comprising preparing a hot rolled sheet, cold rolling the hot rolled sheet once or two or more times with intermediate annealing, decarburizing the cold rolled steel in an atmosphere gas as to not form Fe-based oxides, coating the decarburized steel with an alumina annealing separator and finish annealing the coated steel (see Abstract). Japan '558's process steps are encompassed by the process steps recited in applicants' claim 1. Japan '558 teaches the exact same Si, Al and N content as recited in the instant claims (see Abstract) and specific examples having compositions that are

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encompassed by the alloy composition recited in the instant claims (see machine translation, paragraphs 0027, 0033 and 0037). In view of this and the explanation set forth above under the heading, Claim Interpretation, the process taught by Japan '558 is considered to be encompassed by the process recited in applicants' claim 1.

Allowable Subject Matter

6. Claims 2 to 4 and 6 to 8 are allowed.
7. Improper multiple dependent claims 5 and 9 which have been objected to will be allowed once the dependency is corrected.
8. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for the indication of allowance of claims 2 to 4 and 6 to 8 is set forth as follows.

Regarding claims 2 to 4 none of the references alone or in combination teach or suggest the claimed process of making a grain oriented silicon steel wherein;

the amount of moisture carried
in the annealing separator consisting mainly of alumina
after application and drying of an aqueous slurry is controlled to not more
than 1.5% and,

injecting an atmosphere gas having a
degree of oxidation (PH₂₀/PH₂) of not lower than 0.0001
and not higher than 0.2 during finish-annealing

nor the improved properties as demonstrated by the data set forth in Figures 1 and 2 and the associated examples.

Regarding claims 6 to 8 none of the references alone or in combination teach or suggest the claimed process of making a grain oriented silicon steel wherein;

the amount of moisture carried
in the annealing separator consisting mainly of alumina
after application and drying of an aqueous slurry is controlled to not more
than 1.5% and,

injecting an inert atmosphere gas having a
dew point not higher than 0°C as the atmosphere finish-annealing

nor the improved properties as demonstrated by the data set forth in Figures 3 and 4
and the associated examples.

Conclusion

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to John P. Sheehan whose telephone number is (571)
272-1249. The examiner can normally be reached on T-F (6:45-4:30) Second Monday
Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the
organization where this application or proceeding is assigned is 571-273-8300.


Information regarding the status of an application may be obtained from the
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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John P. Sheehan
Primary Examiner
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Jps